

## CLAIMS

### What is claimed is:

1. A method for gathering operational metrics comprising the steps of:
  - identifying a host within a grid environment, wherein said host is a software object;
  - associating a ghost agent with said host;
  - replicating actions of said host within said ghost agent;
  - determining operational metrics for at least a portion of said replicated actions;
  - recording said operational metrics;
  - moving said host within said grid environment; and,
  - responsively moving said ghost agent in accordance with movement of said host.
2. The method of claim 1, wherein said operational metrics comprise performance metrics.
3. The method of claim 1, wherein said operational metrics comprise load metrics.
4. The method of claim 1, further comprising the steps of:
  - identifying a location for logging data that is external to said ghost agent; and,
  - conveying said recorded operational metrics to said identified location.
5. The method of claim 1, further comprising the step of:
  - generating test input based in part upon said recorded operational metrics.
6. The method of claim 5, wherein said ghost agent is deployed within a production segment of said grid environment, said method further comprising the steps of:
  - deploying at least one ghost agent within a test segment of said grid environment; and,
  - recording operational metrics relating to tests conducted within said test segment using said deployed ghost agents.

7. The method of claim 1, further comprising the steps of:  
selecting a plurality of hosts; and,  
for each selected host, repeating said associating step, said replicating step, and  
said recording step.
8. A method for determining operational metrics comprising the steps of:  
identifying a transaction comprising a plurality of actions;  
executing said actions within different locations of a grid environment;  
replicating said actions within at least one ghost agent;  
recording data relating to said replicated actions; and,  
determining operational metrics for said transaction based upon said recorded  
data.
9. The method of claim 8, wherein said operational metrics comprise performance  
metrics.
10. The method of claim 8, wherein said operational metrics comprise load metrics.
11. The method of claim 8, wherein said different locations exist within different grids  
of said grid environment.
12. The method of claim 8, said executing step further comprising the step of:  
executing said actions within a production segment of said grid environment.
13. The method of claim 12, wherein said transaction is executed for an application,  
said determining step further comprising the step of:  
determining said operational metrics while actions for different applications are  
being executed within said production segment.
14. The method of claim 8, said executing step further comprising the step:  
executing said actions within a test segment of said grid environment.

15. The method of claim 14, wherein said transaction is executed for an application, said determining step further comprising the step of:

executing actions for at least one different application to simulate system load resulting from said different applications.

16. A ghost agent comprising:

an interface for associating said ghost agent with a host;

a ghost log configured to record operational metrics relating to activities performed by said host; and,

a ghost controller for managing interactions between said ghost agent and a grid environment, wherein said ghost agent automatically moves within said grid environment to follow movements of said host.

17. A ghost agent of claim 16, further comprising:

a ghost identifier configured to identify said ghost agent to components within said grid environment.

18. A ghost agent of claim 16, further comprising:

means for disassociating said ghost agent from said host; and,

means for associating said ghost agent with a different host.

19. A machine-readable storage having stored thereon, a computer program having a plurality of code sections, said code sections executable by a machine for causing the machine to perform the steps of:

identifying a host within a grid environment, wherein said host is a software object;

associating a ghost agent with said host;

replicating actions of said host within said ghost agent;

determining operational metrics for at least a portion of said replicated actions;

recording said operational metrics;

moving said host within said grid environment; and,  
responsively moving said ghost agent in accordance with movement of said host.

20. The machine-readable storage of claim 19, wherein said operational metrics comprise performance metrics.

21. The machine-readable storage of claim 19, wherein said operational metrics comprise load metrics.

22. The machine-readable storage of claim 19, further comprising the steps of:  
identifying a location for logging data that is external to said ghost agent; and,  
conveying said recorded operational metrics to said identified location.

23. The machine-readable storage of claim 19, further comprising the step of:  
generating test input based in part upon said recorded operational metrics.

24. The machine-readable storage of claim 23, wherein said ghost agent is deployed within a production segment of said grid environment, said machine-readable storage further comprising the steps of:  
deploying at least one ghost agent within a test segment of said grid environment; and,  
recording operational metrics relating to tests conducted within said test segment using said deployed ghost agents.

25. The machine-readable storage of claim 19, further comprising the steps of:  
selecting a plurality of hosts; and,  
for each selected host, repeating said associating step, said replicating step, and said recording step.

26. A machine-readable storage having stored thereon, a computer program having a plurality of code sections, said code sections executable by a machine for causing the machine to perform the steps of:

identifying a transaction comprising a plurality of actions;  
executing said actions within different locations of a grid environment;  
replicating said actions within at least one ghost agent;  
recording data relating to said replicated actions; and,  
determining operational metrics for said transaction based upon said recorded data.

27. The machine-readable storage of claim 26, wherein said operational metrics comprise performance metrics.

28. The machine-readable storage of claim 26, wherein said operational metrics comprise load metrics.

29. The machine-readable storage of claim 26, wherein said different locations exist within different grids of said grid environment.

30. The machine-readable storage of claim 26, said executing step further comprising the step:

executing said actions within a production segment of said grid environment.

31. The machine-readable storage of claim 30, wherein said transaction is executed for an application, said determining step further comprising the step of:

determining said operational metrics while actions for different applications are being executed within said production segment.

32. The machine-readable storage of claim 26, said executing step further comprising the step:

executing said actions within a test segment of said grid environment.

33. The machine-readable storage of claim 32, wherein said transaction is executed for an application, said determining step further comprising the step of:

executing actions for at least one different application to simulate system load resulting from said different applications.

34. A system for gathering operational metrics comprising the steps of:

means for identifying a host within a grid environment, wherein said host is a software object;

means for associating a ghost agent with said host;

means for replicating actions of said host within said ghost agent;

means for determining operational metrics for at least a portion of said replicated actions;

means for recording said operational metrics;

means for moving said host within said grid environment; and,

means for responsively moving said ghost agent in accordance with movement of said host.

35. A system for determining operational metrics comprising the steps of:

means for identifying a transaction comprising a plurality of actions;

means for executing said actions within different locations of a grid environment;

means for replicating said actions within at least one ghost agent;

means for recording data relating to said replicated actions; and,

means for determining operational metrics for said transaction based upon said recorded data.